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| 10/609,375 | 07/01/2003 | Wieslaw Jerzy Szajnowski | 1906-0116P | 1205 |
| 2292 | 7590 | 02/06/2006 | EXAMINER | |
| BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747 | | | TSAI, CAROL S W | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2857 | |

DATE MAILED: 02/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/609,375

Applicant(s)

SZAJNOWSKI, WIESLAW JERZY

Examiner

Carol S. Tsai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 14-25 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 9, 14 and 15 is/are allowed.
6) ☒ Claim(s) 1, 7, 8, 10, 11, 20 and 23 is/are rejected.
7) ☒ Claim(s) 2-6, 16-19, 21, 22, 24 and 25 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 13 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 20 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by U. S. Patent No. 4,843,309 to Kareem et al.

With respect to claims 20 and 23, Kareem et al. disclose an apparatus for analysing statistical characteristics of an input signal, the apparatus comprising: a signal input for receiving the signal; an event detecting unit operatively coupled to the input for detecting both first events at which the signal level crosses a predetermined level with a positive slope and second events at which the signal level crosses said predetermined level with a negative slope (see Fig. 3; col. 3, lines 38-44; and col. 4, line 19 to col. 4, line 4); a combining unit for combining multiple versions of the signal, the versions being shifted with respect to each other by amounts corresponding to the spacings between said first events and the spacings between said second events, to form at least one representation of the signal (see Fig. 3 and col. 3, line 45 to col. 4, line 7); and a measuring unit for measuring a parameter dependent upon the shape of said at least

one representation and indicative of a statistical characteristic of said signal (see Fig. 3 and col. 4, lines 8-18)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 7, 8, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 4,843,309 to Kareem et al. in view of U. S. Publication 2004/0183531 to Robinson et al.

With respect to claims 1, 7, 8, 10, and 11, Kareem et al. discloses apparatus for analyzing statistical characteristics of an input signal, the apparatus comprising: a signal input for receiving the signal ; an event detecting unit operatively coupled to the input for detecting events at which the signal level crosses a predetermined level with a predetermined slope (see col. 3, lines 38-44); combining unit for combining multiple versions of the signal, the versions being shifted with respect to each other by amounts corresponding to the spacing of said events, to form a representation of the signal (see Fig. 3 and col. 3, line 45 to col. 4, line 7); and measuring unit for measuring a parameter dependent upon the shape of said representation and indicative of a statistical characteristic of said signal (see col. 4, lines 8-18).

Kareem et al. do not disclose the versions comprising overlapping parts of said signal.

Robinson et al. teach disclose the versions comprising overlapping parts of said signal (see Figs. 1, 2, and 5 and paragraph 0037).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kareem et al.'s method to include the versions comprising overlapping parts of said signal, as taught by Robinson et al., in order that deterministic components can be represented as a series of overlapping sinusoidal waveforms.

Allowable Subject Matter

6. Claims 2-6, 16-19, 21, 22, 24, and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 9, 14, and 15 are allowed.

8. The following is a statement of reasons for the indication of allowable subject matter:

U. S. Patent No. 4,843,309 to Kareem et al. is the reference closest to the claimed invention. Kareem et al. disclose an apparatus for analyzing statistical characteristics of an input signal, the apparatus comprising: a signal input for receiving the signal; an event detecting unit operatively coupled to the input for detecting events at which the signal level crosses a predetermined level with a predetermined slope; combining unit for combining multiple versions of the signal, the versions being shifted with respect to each other by amounts corresponding to the spacing of said events, to form a representation of the signal; and measuring unit for measuring a parameter dependent upon the shape of said representation and indicative of a statistical characteristic of said signal. However, Kareem et al. do not teach the integrated circuit

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further comprising: a first input terminal for receiving said input signal, a second input terminal for receiving a threshold signal representing said predetermined level, and at least one output terminal for providing an output signal forming said representation; and including all of the other limitations in the respective independent claims.

U. S. Patent No. 4,843,309 to Kareem et al. is the reference closest to the claimed invention. Kareem et al. disclose an apparatus for analyzing statistical characteristics of an input signal, the apparatus comprising: a signal input for receiving the signal; an event detecting unit operatively coupled to the input for detecting events at which the signal level crosses a predetermined level with a predetermined slope; combining unit for combining multiple versions of the signal, the versions being shifted with respect to each other by amounts corresponding to the spacing of said events, to form a representation of the signal; and measuring unit for measuring a parameter dependent upon the shape of said representation and indicative of a statistical characteristic of said signal, wherein the multiple versions of the signal are time-shifted copies of the input signal, wherein the event detecting unit is operable to detect first and second types of events, and the multiple versions of the signal include a first and second subset, such that each of the first subset of multiple versions of the signal is time-shifted according to a time instance when one of the first type of events occur, and each of the second subset of multiple versions of the signal is time-shifted according to a time instance when one of the second type of events occurs. However, Kareem et al. do not teach average together trajectories of the first subset of multiple versions of the signal to form a first crosslation function; and average together trajectories of the second subset of multiple versions of the signal to form a

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second crosslation function; and including all of the other limitations in the respective independent claims.

Response to Arguments

9. Applicant's arguments with respect to claims 1, 7, 8, and 10-13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Contact Information


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol S. W. Tsai whose telephone number is (571) 272-2224.

The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571) 272-2216. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 886-217-9197 (toll-free).

cswt
February 2, 2006
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CAROL S.W. TSAI
PRIMARY EXAMINER

accepted
2/2/06
[Signature]



5/9

FIG. 7

